

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A ~~gradient material molded body~~roll barrel for processing a web-shaped material, said roll barrel comprising:

a core; and

an outer shell,

said gradient material molded bodyroll barrel being provided close to a final contour of a finished component, and not as a semi-finished component, through continuous casting from a metal alloy solidified in said outer shell of the ~~molded body~~roll barrel outside of thermodynamic equilibrium,

the metal alloy being solidified in the core stably, and the metal alloy being chilled in said outer shell in its crystal lattice by rapid cooling.

2. (Cancelled)

3. (Currently Amended) The ~~gradient material molded body~~roll barrel of claim ~~2-1~~ wherein the metal alloy is not a wrought alloy.

4. (Currently Amended) The ~~gradient material molded body~~roll barrel of claim 1 wherein the metal alloy is a casting iron alloy.

5. (Currently Amended) The ~~gradient material molded body of claim~~roll barrel of claim 1 wherein the metal alloy is a tool steel alloy having a carbon content of at least 0.8 to at most 1.5% in the mean, and a chromium content of at least 5 and at most 12%, and contains at least one of the elements vanadium, molybdenum and tungsten as a further alloying element, wherein the vanadium content is at most 10%, the molybdenum content is at most 1.5% and the tungsten content is at most 1%, the contents each measured by weight.

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) The ~~gradient material molded bodyroll barrel~~ of claim 1 wherein the outer shell exhibits a thickness between 1% and 20% of the mean distance between the surface of the shell and a central longitudinal axis of the ~~molded bodyroll barrel~~.

9. The ~~gradient material molded bodyroll barrel~~ of claim 1 wherein a white-solidified iron base alloy forms the outer shell.

10. (Cancelled)

11. (Currently Amended) The ~~gradient material molded bodyroll barrel~~ of claim ~~10~~1, wherein the metal alloy is an iron base alloy.

12. (Currently Amended) The ~~gradient material molded bodyroll barrel~~ of claim 1 wherein the ~~molded bodyroll barrel~~ is a compound ~~molded bodyroll barrel~~ having fibers extending in the casting direction of the ~~molded bodyroll barrel~~ and cast-in by the metal alloy.

13. (Currently Amended) The ~~gradient material molded bodyroll barrel~~ of claim 1 wherein said ~~gradient material molded bodyroll barrel~~ is an abrasion-proof casting body for at least one of milling, grinding, or chafing.

14. (Currently Amended) The ~~gradient material molded bodyroll barrel~~ of claim ~~6-1~~ wherein the functional component~~roll barrel~~ is a cylindrical rotating body.